



DOCKET NO.: C0989.70023US01


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Fuchs et al.  
Serial No.: 10/821,664  
Confirmation No.: Not Yet Assigned  
Filed: April 9, 2004  
For: ADVANCED MICROFLUIDICS  
Examiner: Not Yet Assigned  
Art Unit: Not Yet Assigned

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 15 day of June, 2004.

  
Kristin J. Ketelhut

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

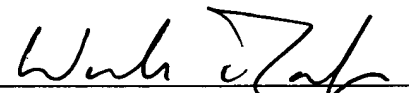
Transmitted herewith are the following documents:

- ☒ Information Disclosure Statement
- ☒ PTO Form 1449 with cited references
- ☒ Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,  
*Fuchs et al., Applicant*

By:   
Walt Norfleet, Reg. No.: 52,078  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617)646-8000

Docket No. C0989.70023US01  
Date: June 15, 2004  
x07/09/04x



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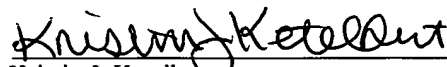
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Kristin J. Ketelhut

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed within three months of the filing date of a National Application other than a continued prosecution application under 37 C.F.R. §1.53(d).

No fee or certification is required.

PART II: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

<u>Docket No.</u>	<u>Serial No.</u>	<u>Filing Date</u>	<u>Inventor(s)</u>
C0989.70011US00	09/373,822	August 13, 1999	Tegenfeldt et al.
C0989.70014US00	09/373,702	August 13, 1999	Chan
C0989.70016US00	09/852,968	May 10, 2001	Chan
C0989.70017US00	09/875,779	June 6, 2001	Chan et al.
C0989.70020US00	10/165,914	June 10, 2002	Shia et al.
C0989.70021US00	10/166,567	June 10, 2002	Wong
C0989.70028US00	10/421,644	April 23, 2003	Gilmanshin et al.
C0989.70031US00	09/783,472	February 14, 2001	Wellman et al.
C0989.70032US00	09/783,930	February 15, 2001	Gilmanshin et al.
C0989.70035US00	10/246,779	September 18, 2002	Chan et al
C0989.70036US00	09/928,668	August 13, 2001	Chan
C0989.70037US00	10/762,207	January 21, 2004	Nadel
C0989.70045US01	10/763,567	January 23, 2004	Gilmanshin et al
C0989.70049US00	10/448,264	May 28, 2003	Chan
C0989.70054US00	10/622,076	July 17, 2003	Gilmanshin
C0989.70060US00	10/435,399	May 9, 2003	Chan

The following are remarks concerning the other information cited:

### PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;

3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

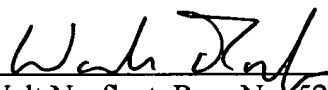
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

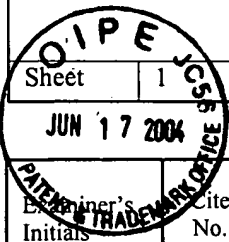
An early and favorable action is hereby requested.

Respectfully submitted,  
Fuchs et al., *Applicant*

By:   
Walt Norfleet, Reg. No. 52,078  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 646-8000

Docket No. C0989.70023US01  
Date: June 15, 2004  
X07/09/04X

FORM PTO-1449/A and B (Modified)		APPLICATION NO.: 10/821,664	ATTY. DOCKET NO.: C0989.70023US01
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		FILING DATE: April 9, 2004	CONFIRMATION NO.: Not Yet Assigned
		APPLICANT: Fuchs et al.	
		GROUP ART UNIT: Not Yet Assigned	EXAMINER: Not Yet Assigned
Sheet 1 of 3			



#### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,674,743		Ulmer	10-07-1997
	A2	5,720,928		Schwartz	02-24-1998
	A3	5,837,115		Austin et al.	11-17-1998
	A4	6,001,229		Ramsey	12-14-1999
	A5	6,120,666		Jacobson et al.	09-19-2000
	A6	6,150,089		Schwartz	11-21-2000
	A7	6,193,647	B1	Beebe et al.	02-27-2001
	A8	6,225,055		Bensimon et al.	05-01-2001
	A9	6,245,507	B1	Bogdanov	06-12-2001
	A10	6,248,537		Bensimon et al.	06-19-2001
	A11	6,263,286	B1	Gilmanshin et al.	07-17-2001
	A12	6,274,373	B1	Virtanen	08-14-2001
	A13	6,294,136		Schwartz	09-25-2001
	A14	6,432,630	B1	Blankenstein	08-13-2002
	A15	2002/0008028	A1	Jacobson et al.	01-24-2002
	A16	2002/0029814	A1	Unger et al.	03-14-2002
	A17	2002/0034748	A1	Quake et al.	03-21-2002
	A18	2002/0055167	A1	Pourahmadi et al.	05-09-2002
	A19	2002/0058332	A1	Quake et al.	05-16-2002
	A20	2002/0072243	A1	Craighead et al.	06-13-2002
	A21	2002/0079008	A1	Chien et al.	06-27-2002
	A22	6,210,896	B1	Chan	04-03-2001
	A23	6,355,420	B1	Chan	03-12-2002
	A24	6,403,311	B1	Chan	06-11-2002
	A25	6,263,286	B1	Gilmanshin et al.	06-17-2001
	A26	6,696,022	B1	Chan et al	02-24-04

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	WO	98/10267	A1	Technical University of Denmark	03-12-1998	
	B2	WO	00/50172	A1	Caliper Technologies Corp.	08-31-2000	
	B3	WO	00/70080	A1	Caliper Technologies Corp.	11-23-2000	
	B4	WO	01/13088	A1	U.S. Genomics, Inc.	02-22-2001	
	B5	WO	02/29106	A2	California Institute of Technology	04-11-2002	

<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 10/821,664		ATTY. DOCKET NO.: C0989.70023US01	
				FILING DATE: April 9, 2004		CONFIRMATION NO.: Not Yet Assigned	
				APPLICANT: Fuchs et al.			
				GROUP ART UNIT: Not Yet Assigned		EXAMINER: Not Yet Assigned	
Sheet	2	of	3				

**OTHER ART — NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C1	AMBROSE et al., Application of single molecule detection to DNA sequencing and sizing. Ber Bunsenges Phys Chem. 1993; 97(12):1535-42.	
	C2	ASTON et al., Optical mapping and its potential for large-scale sequencing projects. Trends Biotechnol. 1999 Jul;17(7):297-302. Review.	
	C3	CHOU et al., A microfabricated device for sizing and sorting DNA molecules. Proc Natl Acad Sci U S A. 1999 Jan 5;96(1):11-3.	
	C4	GURRIERI et al., Purification and staining of intact yeast DNA chromosomes and real-time observation of their migration during gel electrophoresis. Biochem J. 1997 Aug 15;326 ( Pt 1):131-8.	
	C5	HAN et al., Separation of long DNA molecules in a microfabricated entropic trap array. Science. 2000 May 12;288(5468):1026-9.	
	C6	HARVARD MRSEC, Research Nuggets, www.mrsec.harvard.edu/research/nugget_11.html, printed 07/15/2002, 1 page.	
	C7	HARVARD MRSEC, Research Nuggets, www.mrsec.harvard.edu/research/nugget_3.html, printed 07/15/2002, 1 page.	
	C8	HARVARD MRSEC, Research Nuggets, www.mrsec.harvard.edu/research/nugget_4.html, printed 07/15/2002, 1 page.	
	C9	HERRICK et al., Imaging of single DNA molecule: applications to high-resolution genomic studies. Chromosome Res. 1999;7(6):409-23. Review.	
	C10	HERRICK et al., Quantifying single gene copy number by measuring fluorescent probe lengths on combed genomic DNA. Proc Natl Acad Sci U S A. 2000 Jan 4;97(1):222-7. Erratum in: Proc Natl Acad Sci U S A 2000 Apr 11;97(8):4410.	
	C11	HERRICK et al., Single molecule analysis of DNA replication. Biochimie. 1999 Aug-Sep;81(8-9):859-71. Review.	
	C12	KLAR et al., Fluorescence microscopy with diffraction resolution barrier broken by stimulated emission. Proc Natl Acad Sci U S A. 2000 Jul 18;97(15):8206-10.	
	C13	MICHALET et al., Dynamic molecular combing: stretching the whole human genome for high-resolution studies. Science. 1997 Sep 5;277(5331):1518-23.	
	C14	NIE et al., Optical detection of single molecules. Annu Rev Biophys Biomol Struct. 1997;26:567-96. Review.	
	C15	OTOBE et al., Behavior of DNA fibers stretched by precise meniscus motion control. Nucleic Acids Res. 2001 Nov 15;29(22):E109.	
	C16	PERKINS et al. Single polymer dynamics in an elongational flow. Science. 1997 Jun 27;276(5321):2016-21.	
	C17	PERKINS et al., Stretching of a single tethered polymer in a uniform flow. Science. 1995 Apr 7;268(5207):83-7.	
	C18	PHYSICS TODAY ONLINE, www.physicstoday.org/pt/vol-54/iss-6/captions/p42cap5.html, printed 07/15/2002, 2 pages.	
	C19	PHYSICS TODAY ONLINE, www.physicstoday.org/pt/vol-54/iss-6/p42.html, printed 07/15/2002, 8 pages.	
	C20	ROUZINA et al., Force-induced melting of the DNA double helix. 2. Effect of solution conditions. Biophys J. 2001 Feb;80(2):894-900.	
	C21	TAYLOR et al., Probing specific sequences on single DNA molecules with bioconjugated fluorescent nanoparticles. Anal Chem. 2000 May 1;72(9):1979-86.	

<b>FORM PTO-1449/A and B (Modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 10/821,664		ATTY. DOCKET NO.: C0989.70023US01	
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				APPLICANT: Fuchs et al.			
				GROUP ART UNIT: Not Yet Assigned		EXAMINER: Not Yet Assigned	
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	C22	WONG et al., Presentation Slides 1-24, "Direct Manipulations of DNA Molecules Using Hydrodynamic Force", 2002 IEEE International Conference on Robotics and Automation, Washington D.C., May 12, 2002; <a href="http://ho.seas.ucla.edu">http://ho.seas.ucla.edu</a> .		
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EXAMINER	DATE CONSIDERED
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#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_, filed \_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]